REMARKS

Claims 1-4 and 6-15 are currently pending with claims 1-4 and 6-8 being independent. Claim 1 has been amended for clarity to recite "supplying an electric charge to respective capacitors connecting to said pixel electrodes" and "making said liquid crystals monostable by applying an electric field between said pixel electrodes and said electrode opposite to said pixel electrodes in such a manner that all of said pixel electrodes are given a fixed electric potential from said respective capacitors during a common time period". Support for the amendment to claim 1 may be found in the application at, for example, page 12 and lines 18-21. Claims 6 and 7 have also been amended for clarity to recite that the thin film transistor includes "at least a semiconductor layer, a gate insulating film, and a gate electrode." Support for the amendment to claims 6 and 7 may be found in the application at, for example, Fig. 6 and page 17, line 19. New claim 15 has been added. No new matter has been introduced.

Applicants thank Examiner Pompey for participating in a telephonic interview with applicant's representative on March 21, 2007. During the interview, the Examiner acknowledged that Mikami does not satisfy the limitation of creating a monostable device by applying an electric field between a pixel electrode and an electrode opposite the pixel electrode. The Examiner also indicated that he would make the Dubal reference (U.S. Patent No. 6,704,086) part of the record.

As a preliminary matter, applicants respectfully request that the Examiner initial and sign off on the PTO-1449 form submitted on July 20, 2006.

Applicants acknowledge with appreciation the Examiner's allowance of claims 2-4, and the Examiner's indication that claims 9-14 are directed to allowable subject matter.

Independent claim 1 has been rejected as being anticipated by Dubal (U.S. Patent No. 6,704,086). Applicants request reconsideration and withdrawal of this rejection because Dubal does not describe or suggest making liquid crystals monostable by applying an electric field between pixel electrodes and electrodes opposite to the pixel electrodes in such a manner that all of the pixel electrodes are given a fixed electric potential from capacitors during a common time period, as recited in amended claim 1. While Dubal describes a monostable ferroelectric liquid

crystal (FLC) geometry in which the FLC material is oriented with the aid of comparatively high voltages in such a way that only one stable position results, Dubal does not describe or suggest that the one stable position of the FLC is achieved through the application of an electric field between pixel electrodes and electrodes opposite to the pixel electrodes such that all of the pixel electrodes are given a fixed electric potential from capacitors during a common time period. Rather, Dubal is entirely silent as to how the comparatively high voltages are applied to achieve the result of the FLC exhibiting only one stable position. See col. 3, lines 1-12.

Accordingly, for at least this reason, applicants request reconsideration and withdrawal of the rejection of claim 1.

Independent claim 6 has been rejected as being unpatentable over Dubal in view of Mikami (U.S. Patent No. 6,115,017). Applicants respectfully traverse this rejection.

Claim 6, as amended, recites a method for manufacturing an active matrix liquid crystal display device. The method includes forming a first conductive film over a first substrate and forming a thin film transistor over a first insulating film wherein the thin film transistor includes at least a semiconductor layer, a gate insulating film, and a gate electrode. The method further includes forming a second conductive film over a second substrate, providing liquid crystals between the thin film transistor and the second conductive film, and applying an electric field to the liquid crystals by the first conductive film and the second conductive film so that the liquid crystals are made monostable. Applicants request reconsideration and withdrawal of the rejection of claim 6 because neither Dubal, Mikami, nor any proper combination of the two describes or suggests applying, by a first conductive film and a second conductive film, an electric field to liquid crystals positioned between a thin film transistor and the second conductive film so that the liquid crystals are made monostable.

As stated above with respect to claim 1, Dubal describes a monostable ferroelectric liquid crystal (FLC) geometry in which the FLC material is oriented with the aid of comparatively high voltages in such a way that only one stable position results. Dubal, however, does not describe or suggest that the one stable position of the FLC is achieved through application of an electric field by first and second conductive films when the FLC is positioned between a thin film

transistor and the second conductive film. Rather, Dubal is entirely silent as to what physical structure is used to apply the high voltages necessary to achieve the result of the FLC exhibiting only one stable position. See col. 3, lines 1-12.

Mikami is similarly deficient. As stated in the response to the Office Action of June 5, 2006, Mikami does not describe or suggest applying an electric field to liquid crystals between first and second conductive films so that the liquid crystals are made monostable. Moreover, Dubal's teaching that a single stable position of an FLC may be achieved through application of comparatively high voltages to orient the FLC material would not have led a person of ordinary skill in the art at the time of the invention to believe that such a single stable position of an FLC could be achieved through a voltage applied between two conductive films of Mikami's device. Rather, it appears that the two conductive films have been selected by the Examiner solely through impermissible hindsight.

Additionally, applicants disagree with the Examiner's equating of the recited thin film transistor with the gate portion 51 of Mikami. The gate portion 51 of Mikami is not a thin film transistor. Rather, it is a gate portion of a thin film transistor formed by dry-etching two SiO_2 films. See col. 7, lines 22-24. For clarity, applicants have amended claims 6 and 7 to explicitly recite that the thin film transistor includes at least a semiconductor layer, a gate insulating film, and a gate electrode.

Accordingly, for at least this reason, applicants request reconsideration and withdrawal of the rejection of claim 6.

Independent claims 7 and 8 have been rejected as being unpatentable over Dubal in view of Mikami and Sako (U.S. Patent No.6,108,061).

Like claim 6, each of claims 7 and 8 recites the application, by a first conductive film and a second conductive film, of an electric field to liquid crystals positioned between a thin film transistor and the second conductive film so that the liquid crystals are made monostable. Accordingly, applicant requests reconsideration and withdrawal of the rejection of claims 7 and 8 for the reasons discussed above with respect to claim 6 and because Sako, which is cited for the

purpose of showing application of an ultraviolet ray to liquid crystals, does not remedy the failure of Dubal and Mikami to describe or suggest the monostable aspect of the claim.

Moreover, applicants submit that a person of ordinary skill in the art would not have been motivated to turn to Sako when considering how and whether to modify the teachings of Dubal and Mikami. In particular, while Sako discloses a method for making liquid crystals monostable in a passive matrix using AC voltage, such a method relates to passive matrix displays and, therefore, would be deemed inapplicable to the teachings of Dubal and Mikami, which relate to active matrix liquid crystal displays. See col. 7, lines 7-13, col. 8, lines 17-30.

Applicants also submit that claim 8 is patentable over the cited art for the additional reason that none of the cited art describes or suggests the forming of the structure recited by claim 8: a first substrate sandwiched by a TFT and a first conductive film, with liquid crystals provided such that they are disposed between the TFT and a second conductive film, and an electric field is applied to the liquid crystals by the first and the second conductive films. This structure is shown in the application specification at, for example, Fig. 10.

Applicant submits that all claims are in condition for allowance.

The fee in the amount of $120 for the one month extension of time is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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